

SECTION 2: MCQs

FHM Metchu SH KNAN

agesu 2/3

The millennium development goal number 4 sort to REDUCE Under Five Mortal

- (a) 50%
- (b) 25%
- (c) 66%
- (d) 35%
- (e) 10%

3/3 14.6.11 - 7/5

2. The definition of GROWTH FALTERING is:

- (a) Weight loss at stagnation for 2 or more months
- (b) Any weight loss
- (c) Same as malnutrition
- (d) Weight loss of 20% of previous
- (e) Weight loss of 15% of previous

3. Which one of the following is the least important strategy in REDUCING PNEUMONIA DEATHS?

- (a) Lowering indoor air pollution
- (b) Lowering outdoor air pollution
- (c) Improving personal hygiene
- (d) Improving national immunization coverage
- (e) Increasing utilization of health facilities for curative services

4. The top five causes of child deaths in Kenya include all the following EXCEPT:

- (a) Pneumonia
- (b) Diarrheal disease
- (c) Malaria
- (d) Neonatal complications
- (e) Anaemia

5. Which vaccines should a 3 month old child who comes to the clinic with no history of immunization RECEIVE?

- (a) BCG/OPV
- (b) OPV/BCG/Pentavalent and pneumococcal
- (c) OPV/BCG/Pentavalent
- (d) OPV/DPT/Pneumococcal vaccine
- (e) OPV/Pentavalent vaccines

6. Immunization with oral polio vaccines is expected to PROVIDE:

- (a) Active immunity
- (b) Passive immunity (e.g. tetanus toxoid), Rabies
- (c) Active and passive immunity
- (d) Enhancement of innate immunity
- (e) Primary cell mediated immunity

SECTION 2: MCOs

JHM Metchu SAH KNAN

2/3

The millennium development goal number 4 sort to REDUCE Under Five Mortality E

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2/3 1.1.10.10.1. - 7/5

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Which of the following statements BEST describes herd immunity?

- (a) Protection of all the vaccinated individuals
- (b) Protection of some unvaccinated individuals due to passive ingestion of vaccine antigens
- (c) Protection of unvaccinated individuals due to reduced transmission of disease
- (d) Protection of adults when children are vaccinated
- (e) Protection of people when animals are vaccinated

Risk factors for development of neural tube defects include all the following EXCEPT:

- (a) Pre-conceptual diet of mother ✓
- (b) Mother's age ✓
- (c) Post-conceptual diet of the mother ✓ - plate food
- (d) Geographic region of residence of mother ✓
- (e) Family history of same illness ✓

Febrile convulsions are CHARACTERIZED BY:

- (a) Occurrence following prolonged periods of fever ✓
- (b) Occurrence following rapid increase of body temperature ✓
- (c) Family history of Epilepsy ✓
- (d) History of travel to malaria endemic areas ✓
- (e) Normal electro-encephalogram ✓

Regarding interpretation of neurological signs:

- (a) Lesions of the cranial nerves are always of the upper motor neuron type ✓
- (b) Foot drop is seen in lower motor neuron diseases. ✓
- (c) Moro's reflex is decreased in newborns with cerebral irritation ✓
- (d) Reduced muscle tone is expected in upper motor neuron lesion ✓
- (e) Paralysis of the tongue indicates damage to the 9th cranial nerves (type of basal xii) ✓

A 2 month old child is admitted with convulsions. He is sweating and is restless. The temperature is 36°C. The MOST URGENT investigation is:

- (a) Serum electrolytes
- (b) Lumbar puncture
- (c) Blood sugar ✓
- (d) Malaria parasites if he came from Kisumu recently ✓
- (e) Electro-encephalogram ✓

Ofen
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w/pting

12. The following are likely causes of persistent headache in a 10 year old EXCEPT
- (a) Sinusitis ✓
 - (b) Myopia ✓
 - (c) Brain tumor ✓
 - ~~(d)~~ Adenoid inflammation ✓
 - ~~(e)~~ Social disturbances at home ✓
13. A term baby born at home is admitted with history of twitches on one side of the body. He weighs 4.75kg. The MOST LIKELY diagnosis is:
- 4.75
- (a) Severe birth Asphyxia with encephalopathy ✗
 - (b) ✓ Mild birth asphyxia ✗
 - ~~(c)~~ Birth trauma with intra-cranial bleed
 - ~~(d)~~ Birth trauma with encephalopathy ✗
 - (e) Hypoglycemia ✗
14. A 4 year old child from Sierra presents with painful swollen knuckles. His Temperature is 38.5°C. He has no history of trauma. Which of the following conditions is the child MOST LIKELY to have?
- Fever > 38.5
- ~~(a)~~ Thrombotic crisis of sickle cell anaemia
 - (b) Malaria
 - (c) Septic arthritis
 - (d) Haemophilia
 - (e) Juvenile Rheumatoid Arthritis
15. The investigation with the highest SPECIFICITY for a child with septic arthritis is:
- (a) Haemogram
 - (b) Blood cultures
 - ~~(c)~~ Joint aspirate for cultures
 - (d) C-Reactive protein
 - (e) Magnetic imaging of the joint
16. Which one of the following infections LEAST LIKELY to cause arthritis?
- ~~(a)~~ Malaria
 - (b) HIV ✓
 - (c) Streptococcus ✓
 - (d) Staphylococcus - Most common
 - (e) Salmonella - SCD

Match the inheritance patterns in numbers 17-18 with conditions listed as A-E

- | | |
|---------------------------|---|
| 17. Autosomal recessive ✗ | A. AD Achondroplasia (D) |
| 18. B X-linked B ✓ | B. AD Haemophilia A (Recessive) |
| 19. Autosomal dominant A | C. AR - Sickle cell disease (AR) - even Autosomal recessive |
| | D. AD Diabetes mellitus - recessive |
| | E. AD Diabetes insipidus - AD |

AD - 50% of transmission 2 child - one mutant gene (heterozygous)

AR - 25% of transmission 0 child - both mutant genes (homozygous)

Aut

... TRUE regarding antibiotic usage.

- (a) Increased prescription leads to increased resistance
- (b) All forms of resistance to penicillin CANNOT be corrected by increasing the dose
- (c) Side effects of Gentamycin are increased by single daily dosing - Aminoglycoside
- (d) Ciprofloxacin is contra-indicated in children - 100 mg women
- (e) Cefuroxime is a 3rd generation Cephalosporin - ~~and~~ Cefepime - 4th gen

21.

Regarding macrolide antibiotics. They are:

↳ erythromycin, clarithromycin, azithromycin

- (a) Not effective against Streptococcus pneumoniae ✓
- (b) Effective against most gram negative organisms ✓
- (c) Effective against most anaerobes - No
- (d) Useful in treating atypical pneumonia mycoplasma and tetracyclines legionella
- (e) Contra-indicated in newborns

22.

Which one of the following statement IS TRUE regarding drugs used in the treatment of Asthma?

status asthmaticus

- (a) The 1st line of treatment ^{is} acute attacks ^{is} inhaled Beta agonists. *Short acting - Salbutamol*
- (b) Aminophylline is the first line drug for children with status asthmaticus *anticholinergics*
- (c) Oral prednisone is useful in long term prevention of attacks *inhalers*
- (d) Magnesium Sulphate is used in acute attacks at casualty *inhalers*
- (e) Inhaled corticosteroids are effective in controlling acute attacks

1-3 hr therapy

23.

The fundamental difference between psychotic and neurotic disorders is:

- (a) Loss of insight among neurotics but not psychotics
- (b) Loss of insight among psychotics but not neurotics
- (c) Hallucinations are more common among neurotics
- (d) Depression being commoner in neurotics
- (e) Depression is the hallmark of neurotics

psychotic

neurotic

24.

Social development is determined by all the following EXCEPT:

- (a) Chronological age ✓
- (b) Mental age ✓
- (c) Family dynamics ✓
- (d) Environmental factors ✓
- (e) Diet

25.

A mother reports that his 5 year old son interacts very little with other children. He prefers to play alone and likes repetitive action. He MOST LIKELY has:

- (a) Schizophrenia
- (b) Autism
- (c) Attention deficit disorder
- (d) Very low intelligence
- (e) Extreme shyness

26. The adolescent age group is

- (a) 7 - 15 years
- (b) 9 - 19 years (10 - 24 years)
- (c) 20 - 25 years
- (d) Occurrence of puberty
- (e) Early school age

27. Adolescents are at INCREASED RISK of all the following EXCEPT

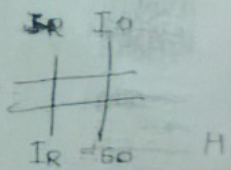
- (a) Alcohol abuse -
 - (b) Drug abuse -
 - (c) Sexually transmitted diseases -
 - (d) Psychotic behaviour -
 - (e) Accidental poisoning - *intentional*
- 0.2 - intake
2.2 kg - accident*

28. Which of the following is NOT a sign of acute middle ear infection?

- (a) Bulging ear drums ✓
- (b) Redness of the ear drum ✓
- (c) Discharging ears ✓
- (d) Fluid in the middle ear ✓
- (e) Haziness of the ear drum - *Opaque*

29. The recommended first line treatment for acute Otitis Media in Kenya is;

- (a) Amoxicillin at 90mg/kg/day for 10 days ✓
- (b) Amoxicillin at 60 mg/kg/day for 10 days ✓ *15mg/kg 3x a day*
- (c) Cefuroxime at 10mg/kg/day for 10 days
- (d) Cefuroxime at 100mg/kg/day for 10 days
- (e) Ceftriaxone at 50mg/kg/day for 3 days



30. Which of the following statements about ocular movements IS CORRECT?

- (a) The 3rd cranial nerve innervates the abducent muscle ✓
- (b) All ocular muscles except the abducent and the trochlear are innervated by the 3rd cranial nerve ✓
- (c) Paralysis of the 6th nerve makes it difficult to rotate the eye ball ✓ *a cause of strabismus*
- (d) Paralysis by the 4th nerve disables medial deviation of the eye ball ✓ *deviation of the eye*
- (e) Paralysis of the sixth nerve disables upward gaze ✓

31. Regarding conjunctivitis:

- (a) The neonatal disease is mostly caused by gonorrhoea *chlamydia*
- (b) Disease beginning on day one of life is most likely to be caused by staphylococcus ✓
- (c) Chlamydia is a rare cause in newborns *most common*
- (d) Prophylactic tetracycline eye ointment at birth can reduce disease burden ✓
- (e) Always responds to local treatments ✓ *NO*

- (a) A family history of asthma
- (b) Exclusively breastfed for 6 months
- (c) Been predominantly fed on vegetarian diet
- (d) Been delivered prematurely
- (e) Poor feeding habits

2 yr
 Reo - confluent red rash
 and pleural areas
 Externa - conjunctivae
 - Otitis
 - Rhinitis

33. A child with a vesicular rash appearing in crop should be kept A WAY FROM:
- Chickenpox
 Lesion - chicken pox
- (a) School
 - (b) Water
 - (c) Playing with other children
 - (d) The oncology ward
 - (e) Sharing water sources with others

Match the chemical agents listed as 34-36 with appropriate statements in A - E

- | | | | |
|---------------------|--------------|--------------------------|------------------------------------|
| 34. Organophosphate | A | A. Reye's syndrome - PAS | Chickenpox, meningitis |
| 35. Salicylic acid | B | B. Widened pupils | OCAM, ectopy, mania |
| 36. Paracetamol | C | C. High liver enzymes | Paracetamol |
| | D | D. Small pupils | mitosis, bronchospasm, bradycardia |
| | E | E. Haematuria | pinpoint, morphine |

37. The primary protection to invasive infections in the neonate is provided by:

- (a) Neutrophils
- (b) Macrophages
- (c) Lymphocytes
- (d) Skin and mucus membranes
- (e) Immunoglobulin A

38. Which one of the following IS A RISK for neonatal septicaemia?

- (a) One minute Apgar score of < 7 ~~X~~
- (b) Female gender of the neonate ~~X~~
- (c) Non-suppressible premature labor
- (d) Maternal diabetes mellitus
- (e) Rupture of the membranes 72 hours before delivery

39. Lumbar puncture in the neonate should be performed in the following situations:

- (a) Any "sick" baby ✓
- (b) Any baby with respiratory distress ✓
- (c) Any baby with poor feeding and high pitched cry - Meningitis or sepsis ✓
- (d) Any baby with fever ✓
- (e) Any baby with persistent vomiting ✓

40. A very effective method of preventing neonatal infections is:

- (a) Ensuring that specific gowns are provided for walking in the neonatal unit
- (b) Wearing a face mask at all times in case of an upper respiratory infection
- (c) Regular sterilization of fomites
- (d) Strict and proper hand washing ✓
- (e) Barrier nursing for all infected babies

41.

In necrotizing enterocolitis (NEC), an important clinical sign in the diagnosis is:

- (a) Vomiting ✓
 - (b) Frequent small stools ✓
 - (c) Peri-umbilical flare ✓
 - (d) Irritability ✓
 - (e) Refusal to feed ✓
- lethargy
- hypohyperosmia
- abd distension
- gastric retention - bloody stool

42. A new born baby who is 38 weeks gestation and weighing 3.0 kg develops what is diagnosed as neonatal septicaemia with pneumonia. The appropriate choice of antibiotic would be:

- (a) Ceftriaxone as monotherapy
- (b) Cefotaxime as monotherapy
- (c) Crystalline penicillin and ceftazidime
- (d) Crystalline penicillin and gentamycin ✓
- (e) Crystalline penicillin and ceftriaxone

43.

You are asked to review a 3 week old baby who was born at 28 weeks gestation. The baby is pale, feeding well but has poor weight gain. Investigation reveals haemoglobin of 6.5 g/dl. The baby requires transfusion because of:

- (a) The low haemoglobin alone ✓
- (b) The low haemoglobin plus poor growth
- (c) The low haemoglobin, poor growth and age of 3 weeks ✓
- (d) Need to replenish iron stores ✓
- (e) Need to facilitate early discharge ✓

Alternative

Fe until 2 months

Preterm - Resp dyst - IV diet
day 2 - enteral feeds

- (a) Fewer episodes of sepsis
- (b) Shortened hospital stay ✓
- (c) Improved gut motility ✓
- (d) Only A and C are correct
- (e) A, B and C are correct

45. A baby born at 29 weeks gestation after premature rupture of membranes. He weighs 1100g. At 4 hours of age the respiratory rate is 80 breaths/minute. He is grunting and has chest wall in drawing. This baby's condition is most likely due

760 -

- (a) Poor architecture of the lungs
- (b) Inadequate resuscitation at birth
- (c) Immature function of type II pneumatocytes. RBS ✓
- (d) Delayed absorption of lung fluid
- (e) Persistent ductus arteriosus

46. Preterm delivery is related to all of the following factors EXCEPT:

- (a) Maternal under-nutrition ✓
- (b) Inadequate antenatal care ✓
- (c) Short inter-pregnancy intervals ✓
- (d) Bacterial infection of chorionic membranes ✓
- (e) Lack of birth preparedness ✓

47. In neonatal resuscitation (at birth):

- (a) The first breaths administered aim to establish normal lung volumes ✓
- (b) Chest wall compression directly stimulates the heart ✓ ✓
- (c) Aminophylline is used to stimulate cardiac activity ✓ ✓
- (d) It is necessary to have two skilled people in most cases ✓
- (e) Fast ventilation rate of 60 is always necessary ✓

48. The following statements are true regarding perinatal asphyxia in Kenya EXCEPT:

- (a) It is more common than neonatal sepsis → Equal ✓
- (b) It is more common among deliveries in home deliveries ✓
- (c) It is a common cause of cerebral palsy ✓
- (d) It is more common among premature infants ✓
- (e) It is among the top 3 causes of neonatal deaths ✓

LBW, asphyxia, sepsis - Equal in prevalence

49. You are called to a delivery in which the baby is expected to be depressed. The liquor is clear. What is the most important tool you need?

- (a) Reliable supply of oxygen
- (b) Functioning ambu bag and appropriate face masks
- (c) Good suction equipment
- (d) Stethoscope
- (e) Oxygen saturation monitor

50. Which of the following features is the one most consistent with Hypoxic- Ischemic encephalopathy grade 3?

- (a) Unconsciousness
- (b) Hypotonic - 2
- (c) Hypertonic I
- (d) Convulsions also
- (e) Apnoea

Handwritten notes:
1 - hyperactive, myoclonic, strong motor, mydriasis, yelping
2 - hypotonic, hypothermia, hyporeflexia, 4-6 hrs, myoclonic, myopia
3 - grade 1 - ethereal, no convulsion, moderate - duct, lethargy, cyanosis
3 - severe, coma, unresponsive to cerebral / de-arrest

51. An infant is admitted following difficult delivery. He develops convulsions lasting more than five minutes. The correct sequence of management is:

- (a) Intravenous phenobarbitone, airway management and oxygen supplementation
- (b) Oxygen supplementation, airway management and phenobarbitone
- (c) Intravenous glucose, phenobarbitone, oxygen
- (d) Airway case, oxygen supplementation, phenobarbitone
- (e) Intravenous glucose, calcium than phenobarbitone

52. The following are true regarding streptococcus pneumonia EXCEPT:

- (a) This bacterium is identified in culture by its partial alpha haemolytic capability
- (b) Children with sickle cell disease are susceptible to pneumococcal infection due to its deficits in the properdin pathway - Yers
- (c) Virulent pneumococci are resistant to phagocytosis by alveolar macrophages
- (d) The anti-phagocytic properties of the pneumococcal capsule contributes to its invasive capability
- (e) Naso pharyngeal carriage consistently induces systemic immunity

53. Characteristics of septic shock include all the following except:

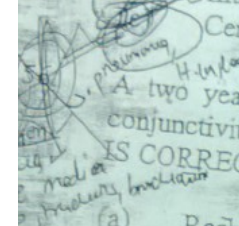
- (a) Acute respiratory distress →
- (b) Bacteraemia ✓
- (c) Altered level of consciousness
- (d) Peripheral cyanosis
- (e) Tachycardia ✓

in the third term the boy started losing weight and developed night sweats. He also complained of always feeling tired. Which of the following statements IS TRUE?

- (a) An ESR test would be diagnostic.
- (b) A Mantoux Test Induration of 12 mm indicates infection.
- (c) A gram stain of his sputum would confirm the diagnosis.
- (d) Presence of widespread patchy, opacities in both lung fields is characteristic of the primary form of the disease.
- (e) Treatment should be given for 4 months.

55. An 18 month old child develops fever and is reported to be crying more than usual. The following day he had repeated convulsions and was brought to hospital. On examination, he had a stiff neck. He was previously well and of good nutritional status. Which of the following statements is NOT CORRECT?

- (a) The causative organism is likely to be streptococcus pneumoniae.
- (b) The appropriate vaccine is administered from the age of 6 weeks.
- (c) If treatment is prompt, neurologic sequelae are rare.
- (d) Intravenous penicillin G and chloramphenicol is the treatment of choice.
- (e) Cerebrospinal fluid is likely to have predominantly lymphocytes.



A two year old child develops rhinorrhoea cough and fever, with non-purulent conjunctivitis. 7 days later a macula-papular rash appears. Which of the following IS CORRECT?

- (a) Rash typically is pruritic.
- (b) Rash spreads centrifugally.
- (c) Koplik's spots are pathognomonic of the primary cause.
- (d) Encephalitis is a common complication.
- (e) Pneumonia is a rare complication.

The following infections are associated with xanthems except:

- (a) Roseola
- (b) Measles
- (c) Rubella
- (d) Adenovirus
- (e) Parvovirus

- Rubella (measles) 1st day
- Rubella (german measles) 3rd day
- Parvovirus B19 (erythema infectiosum) 5th day
- Roseola (HHV6/7) infantum (6th day)
- Scarlet fever (2nd day)
- VZV - chicken pox
- Mumps - mumps

Which of the following statements IS FALSE regarding a child with a 7 days history of cough followed by 3 days of fever and ear ache?

- (a) Clinical diagnosis is confirmed by visual examination.
- (b) In recurrent cases, hearing may be impaired.
- (c) Likely bacterial pathogens include streptococcus pneumoniae.
- (d) Rupture and purulent discharge is a bad prognostic sign for future hearing.
- (e) Treatment with parenteral penicillin should be commenced immediately.

Bacterial meningitis

WBC < 7 , lymphocyte $> 10\%$

Neurophilic = Bacteria (3-95)

derated protein

↓ glucose

↑ protein 76-800 mg/dl

Viral meningitis

WBC > 10 , lymphocyte $> 10\%$

Neurophilic = Bacteria (3-95)

derated protein

↓ glucose

↑ protein 76-800 mg/dl

59. All of the following are characteristic of Meningococcal disease EXCEPT:

- (a) Purpuric lesions
- (b) Gram positive bacilli identified in cerebro-spinal fluid
- (c) Positive Brudzinski's sign - *Gram -ve diplococci*
- (d) Convulsions -
- (e) Fever lasting more than 3 days -

60. The following factors increase risk of mother to child transmission of HIV EXCEPT:

- (a) Maternal viral load of $> 100,000$ viral particles / ml
- (b) ~~CD4 > 350 cells / mm^3~~
- (c) Presence of a STD -
- (d) Gestation < 37 weeks at birth -
- (e) Emergency caesarian section

61. You examine a 6 year old HIV infected boy and find that he has generalized lymphadenopathy persistent lymphopenia for the past 6 months, visible wasting and height $\ll -2$ SD's (standard deviation) for his age. Based on the information what is the WHO clinical stage of HIV in this child?

- (a) WHO clinical Stage 1
- (b) WHO clinical stage 2
- (c) WHO clinical stage 3 - *PFB, unexp wtd. malnutrition*
- (d) WHO clinical stage 4 - *severe malnut, wasting*
- (e) Presumptive stage 4

Atieno is 20 weeks pregnant. She is HIV infected. Her CD4 is 400 cells/ mm^3 and presents with radiologically confirmed pneumonia. Which is the best ARV therapeutic option for her?

- (a) Start NVP at onset of labour and 2 mg/kg. NVP syrup to her baby within 72 hours of delivery. *400 200 200 → Resistance → Hepatitis*
- (b) AZT at 300 mg twice daily starting at 28 weeks and continued until one week post delivery with addition of start NVP plus combivir during labour and one week post delivery. *Combivir 3TC*
- (c) Start NVP at onset of labour to mum and then daily NVP for the infant until baby stops breastfeeding
- (d) Triple ARV's AZT/3TC/NVP started immediately and continued as treatment option for the mother *Kaletra - lopinavir, ritonavir*
- (e) Triple ARV's AZT/3TC/Alluvia started immediately and continued as treatment option for the mother

3. Option plan

A - 14wk AZT, till 1wk after delivery. NVP onset of labour. *simple choice* - *continue AZT + (dexamethasone)*

B - AZT after 1wk after delivery. *exclude of low solid*

C - Triple ARV for life.

development (c)

- acquired symmetrical motor defects ✓
- Loss of intellectual ability ✓
- Acquired microcephaly ✓
- Consistently abnormal CSF findings ✓

64. A 14 years old has been on highly active anti-retroviral therapy for 8 years. She is now admitted with diagnosis of sputum positive tuberculosis. Her management should include all the following except:

NVP and ARV

- (a) ✓ Standard course of TB treatment - Rifampicin, INH, pyrazinamide ✓
- (b) ✓ Once daily co-trimoxazole prophylaxis ✓
- (c) ✓ Change anti-retroviral drug preferred because of new WHO clinical stage 3 event ✓ *Boce of*
- (d) ✓ Withhold anti-retroviral drug during intensive phase of TB treatment ✓ *change*
- (e) ✓ Provide nutrition supplements to ensure energy intake at 130% of the normal requirements ✓ *More energy demand*

65. High mortality in Protein Energy Malnutrition (PEM) correlates with the presence of all these EXCEPT:

- (a) ✓ Hypothermia ✓
- (b) ✓ Hypoglycaemia ✓
- (c) ✓ Infection ✓
- (d) ✓ Haemoglobin level of about 90% ✓
- (e) ✓ Electrolyte imbalances ✓

Scurvy is caused by which of the following deficiencies?

- (a) Folic acid
- (b) Vitamin A
- (c) Vitamin K
- (d) ✓ Vitamin C ✓
- (e) Pyridoxine

(9) ✓

Oedema of kwashiorkor:

- (a) ✓ Occurs most commonly on the face *trunk and limbs*
- (b) ✓ Is considered a major sign of Kwashiorkor ✓
- (c) ✓ Subsides on digitalization ✓
- (d) ✓ Is associated with gross ascites ✓
- (e) ✓ Results from low serum globulin *albumin*

68. Vitamin D deficiency rickets:

- (a) Occurs due to low intake of animal fats
- (b) Is associated with elevated serum calcium *Reduced*
- (c) Occurs in growing children
- (d) Occurs most commonly in orphans
- (e) Is associated with low serum alkaline phosphatase *High*

69. Which IS TRUE concerning iron metabolism?

- (a) Staple foods such as plantains contains very high levels of iron *→ Mashed - Potato*
- (b) High phytic acids in sorghum facilitate iron absorption *- Inhibit*
- (c) Iron deficiency occurs in rapidly growing children
- (d) Iron in meat destroyed by cooking
- (e) Iron absorption in the gut is enhanced by iodine

70. Primary diagnostic consideration in a child with leukocoria DOES NOT include:

- (a) Cataract ✓
- (b) Retinopathy of prematurity ✓
- (c) Visceral larva migrans
- (d) Optic glioma
- (e) Retinal detachment ✓

71. A blood smear demonstrates macrocytes. Which one of the following is NOT compatible with the smear?

- (a) Coeliac disease ✓
- (b) Chronic blood loss *x Fe*
- (c) Pregnancy ✓
- (d) Juvenile pernicious anaemia ✓
- (e) Methotrexate treatment for leukemia ✓

72. Which one of the following statements about megaloblastic anaemia is true?

- (a) A goat's milk diet may often cause it
- (b) The peak incidence is at 2 years of age *(4-7 months)*
- (c) Rickets often accompanies the disease
- (d) When present at 4 to 7 months, vitamin B₁₂ deficiency is the usual cause *folate*
- (e) The reticulocyte level is usually high *low*

73. The predominant haemoglobin present at birth in normal infants is:

- (a) Haemoglobin A
- (b) Haemoglobin A₂
- (c) Haemoglobin F
- (d) Haemoglobin Gower
- (e) Haemoglobin Portland

- (b) There are abnormal cells in the peripheral blood film.
 - (c) Trephine biopsy is not essential.
 - (d) Stem cell transplantation using a matched sibling donor leads to cure rates of up to 50% ~~variable~~ > 80%.
- May be associated with congenital defects of the skeleton, renal tract or skin

For each drug (75-77), select the potentially irreversible dose-related toxicity (A to E)

- | | |
|--------------------|---|
| 75. Asparaginase D | A. Haemorrhagic cystitis - cyclophosphamide |
| 76. Bleomycin E | B. Leukoencephalopathy - |
| 77. Methotrexate E | C. Myocardial damage - Adriamycin, doxorubicin, anthracycline |
| | D. Pancreatitis |
| | E. Pulmonary fibrosis - bleomycin |
- uncomplicated malaria*

78. Daniel who is a 4 year old boy presents with lethargy high fever, chills and severe vomiting. Three weeks prior to this he had travelled to Western Kenya with his parents. What is the MOST APPROPRIATE treatment?

- (a) Intravenous Quinine
- (b) Oral combination of artemether-lumefantrine X - Severe vomiting
- (c) Intramuscular Chloroquine
- (d) Oral mefloquine X - prophylaxis
- (e) Doxycycline-dapsone combination X

79. Kavoo is referred to KNH from Eastern province due to progressive left upper abdominal swelling and generalized fatigue. Commonly associated findings include the following except:

- | | |
|----------------------------|-------------------------|
| (a) Lymphadenopathy ✓ | |
| (b) Immune suppression ✓ | |
| (c) Severe anaemia ✓ | Normocytic normochromic |
| (d) Spontaneous bleeding ✓ | long term |
| (e) Weight loss ✓ | cachexia |
- Tx - praziquantel
- Oxamiquine
Kloridly -
Fever, hepatosplenomegaly
pancytopenia

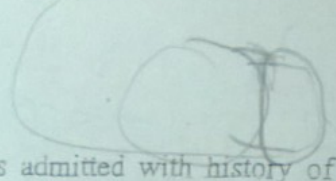
80. Mwangi who grew up in Mwea frequently played within flooded rice fields. He now presents with splenomegaly and distended abdominal vessels. He has also vomited blood on a few occasions. The most valuable diagnostic investigation is:

- (a) Liver biopsy X
- (b) Abdominal CT scan X
- (c) Full blood count with eosinophil count
- (d) Stool examination ✓
- (e) Bone marrow aspirate ✓

81. Saul lives in Western Kenya and he presents with a hypo-pigmented skin with loss of sensation on his left forearm. The following medications are appropriate for his treatment except:

- (a) Dapsone ✓
- (b) Rifampicin ✓
- (c) Clofazimine ✓
- (d) Clarithromycin ✓
- (e) Cotrimoxazole ✓

Leprosy tx - Rifam
 - Cotrimoxazole } Short term chem
 - LASH



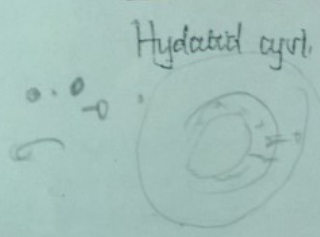
82. Hinga, an HIV positive 10 year old is admitted with history of severe headache, blurred vision and intermittent fever. Potential likely causes of his condition include the following EXCEPT.

- (a) Toxoplasmosis ✓
- (b) Tuberculosis ✓
- (c) Primary brain lymphoma ✓
- (d) Kaposi sarcoma ✓
- (e) Cryptococcal meningitis ✓

- H
 - Vision
 - Intermittent

83. Ekopt is an 8 year old from the Northern part of Kenya. He is referred for treatment due to a progressively enlarging abdomen over a long period of time. An abdominal ultrasound is suggestive of a large cystic intra-abdominal lesion. Definitive management of this child is:

- (a) Radiotherapy
- (b) Albendazole
- (c) Cytotoxic medication
- (d) Surgery ✓
- (e) Corticosteroid therapy



84. Administration of yellow fever vaccine is contraindicated in:

- (a) Children less than 15 months of age ✗
- (b) Children less than 9 months of age ✗
- (c) Children with asymptomatic HIV infection ✗
- (d) Children with atopic dermatitis - egg allergy ✗
- (e) Sexually active adolescent girls ✗

- Live, 1M adu
 - Fever, H, encephalitis
 - Egg allergy
 - < 4 months (4-9)
 - PG
 - Immunocompromised

MMR04 BCG
 11111

85. Which of the following is not a feature of acute renal failure?

- (a) Fluid overload ✓
- (b) Hypokalemia - Hyperkalemia ✗
- (c) Hypertension - Norm ✓
- (d) Oliguria ✓
- (e) Uraemia ✓

stage of HIV
 stage I
 - generalized persistent lymphadenopathy
 stage II
 - ...

Emergency treatment of a patient suspected of accidental ingestion of poison includes (a) the following:

- (a) Initial resuscitation and stabilization ✓
- (b) Induction of emesis ✓
- (c) Removal of unabsorbed toxins ✓
- (d) Forced diuresis with alteration of urine pH ✓
- (e) Antidotes when available ✓



A six month old infant is admitted into the paediatric wards with a diagnosis of large ventricular septal defect. The baby is EXPECTED TO HAVE:

- (a) Cyanosis? *- pulm. pulm. decloud - P wave not nuched*
- (b) Cardiomegaly ✓ *- biventricular hypertrophy*
- (c) A continuous murmur - No murmur (small vsd lead murmur)
- (d) Reduced pulmonary vascular markings *Increased*
- (e) Predominate right ventricular hypertrophy. *DLH*

94. Squatting is a feature commonly seen in:

- (a) Congestive heart failure *- myocardial path*
- (b) Etiology of tallot *- knee chas, Myxoma SQ, sodium, bicarbonate, for net nuclear*
- (c) Ventricular septal defect
- (d) Transposition of the great vessels *hy peroxym*
- (e) Ebstein's anomaly *- cyanotic - R*

95. The following are causes of left to right shunts EXCEPT:

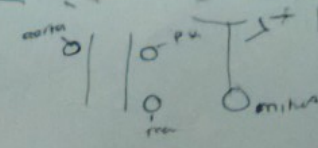
- (a) Aortic valve stenosis
- (b) Total anomalous pulmonary venous return *- cyanotic x R-R to (4 blood to main to the b*
- (c) Patent ductus arteriosus ✓ *cyanotic*
- (d) Arterial septal defect ✓
- (e) Ventricular septal defect ✓ *cyanotic*

96. A 10 year old boy has migratory arthritis and warm swollen joints. His antistreptolysin test (ASOT) needs 1:1600. The arthritis is expected to:

- (a) Be painless *x*
- (b) Heal without deformity *x*
- (c) Appear after fever subsides
- (d) Co-exist with carditis invariably ✓ *Sydenham's chorea doesn't exist with pericarditis*
- (e) Involve large and small joints ✓ *sydenham's chorea*

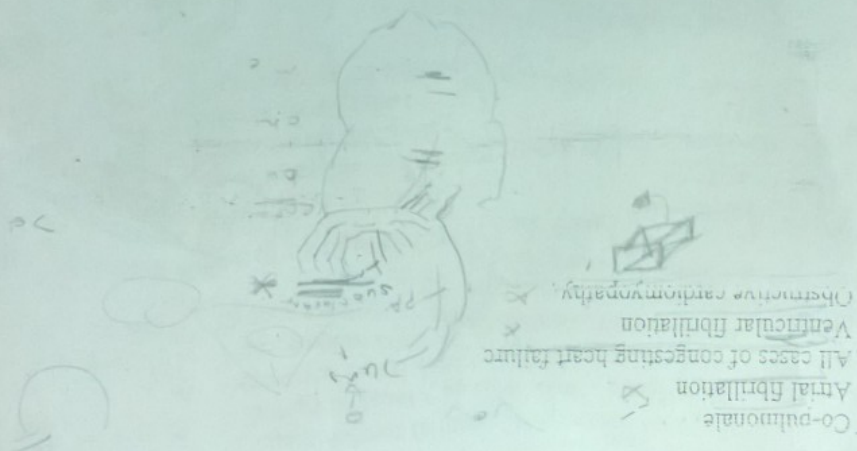
The following finding IS CONSISTENT with rheumatic mitral regurgitation.

- (a) Right parasternal heave *x - x*
- (b) Slapping apical impulse
- (c) Diffuse apex beat which is displaced down-wards and laterally *- Apical heave lateral*
- (d) Diastolic apical thrill *- Mitral regurgitation - 4th X*
- (e) Palpable systolic thrill along the left upper sternal border *- Palpable thrill along*



Trachea shift - moving away from the lesion - pneumothorax, pleural effusion
Moving towards lesion - cystic fibrosis, mediastinal shift

Ques 10
1 mark - 100%



- (a) Co-pulmonary
- (b) Atrial fibrillation
- (c) All cases of congesting heart failure
- (d) Ventricular fibrillation
- (e) Obstructive cardiomyopathy

100. Digoxin is indicated in which of the following conditions?

- (a) Truncus arteriosus
- (b) Polycythemia
- (c) Atrial-ventricular septal defect
- (d) Total anomalous pulmonary venous return
- (e) Meconium aspiration syndrome

Handwritten notes for question 100:

- ASD
- PDA
- AVSD
- VSD
- ASD + PDA
- ASD + VSD
- ASD + PDA + VSD
- ASD + PDA + VSD + AVSD
- ASD + PDA + VSD + AVSD + DDA
- ASD + PDA + VSD + AVSD + DDA + DDD
- ASD + PDA + VSD + AVSD + DDA + DDD + DDD

Which of the following conditions does not cause cyanosis in the newborn?

- (a) Ostler's nodes - Rare
- (b) Chest pain - N
- (c) Splinter hemorrhages - May
- (d) Fever
- (e) Splinter haemorrhages - May

NB: Splinter haemorrhage in newborns is rare
Clubbing, Osler's nodes, Roth's spots - Rare
Major symptom - non-specific feverishness

The most common clinical finding in infective endocarditis is:

Interventions are an important cause of abortion-related morbidity and mortality

Why are characteristic abortions associated with 5th trimester morbidity? (5 marks)

1) Most small loss in past pregnancies
2) selfless = Rate of septal development ↓
3) Use of uterine preservation state in Revision.
4) Risk of BLE
5) Delay in seeking health care (Suicidal thoughts + depression)
6) 1st post-abortion measure taken for polycystic ovaries

What clinical signs suggest presence of post-abortion salpingo-oophoritis and pelvic peritonitis (5 marks)

1) Pelvic pain & discharge
2) Cervical motion tenderness
3) Adnexal tenderness
4) Cervical motion tenderness
5) Adnexal tenderness
6) Cervical motion tenderness
7) Adnexal tenderness
8) Cervical motion tenderness
9) Adnexal tenderness
10) Cervical motion tenderness

List five (5) investigations you would order if endotoxic shock goes in (10 marks)

1) FHC
2) CRP
3) VEGC
4) Blood Culture
5) UECs
6) LFTs
7) ECG
8) Urine
9) CXR
10) ABG

QUESTION 2 (10 MARKS)

Good antenatal, intrapartum and postpartum care are critical in achieving millennium development goal number five (5).

Give five (5) reasons why antenatal care is essential (5 marks)

- 1) Detect and manage physiological & social well-being
2) Detect and manage complications
3) Develop birth preparedness plan
4) Develop complication management plan
5) Help prepare the mother to BF successfully

A sixteen (16) year old single primigravida comes with an haemoglobin level (Hb) of 5.0 g/dl. Packed cell volume (PCV) of 15.9%, mean corpuscular volume (MCV) and mean corpuscular haemoglobin (MCH) were low. She was not treated.

Based on the information given, make a comprehensive diagnosis. (10 marks)
1) Iron deficiency anemia
2) Microcytic hypochromic anemia
3) Severe iron deficiency anemia
4) PCV of 15.3%
5) Microcytic picture

State the expected features of a peripheral blood film of this patient (4 marks)

1) Blast cells
2) Hypochromic
3) Microcytic
4) Anisocytosis
5) Polychromasia
6) Target cells
7) Spherocytes
8) Bite cells
9) Cabot's rings
10) Howell-Jolly bodies

Plasma
Hemoglobin
Hematocrit
Red cell count
White cell count
Platelets
Iron
Folate
Vitamin B12

Apoptosis
for a sign
change in
the system
that will bring
back of things
made of things

QUESTIONS (100 MARKS)

Good antenatal, intrapartum and postpartum care are critical in achieving optimum development goal number (10/5)

Give five (5) reasons why antenatal care is essential (5 marks)

- 1. Promote and advise physical, mental & social well-being in both maternal & fetal
- 2. Detect and manage complications (maternal, fetal, obstetrical)
- 3. Develop health prophylactic plan & educate
- 4. Develop complete antenatal plan & PPT
- 5. Help prepare the mother to BF successfully, experience of labor

A sixteen (16) year old single primigravida comes with an haemoglobin level (Hb) of 5.9 g/dl. Packed cell volume (PCV) of 15.0%, mean corpuscular volume (MCV) of 100 fl and mean corpuscular haemoglobin (MCH) of 10.5 pg.

Based on the information given, make a comprehensive diagnosis. Physiological & pathological changes associated with this condition. (15 marks)

State the expected features of a peripheral blood film of this patient (4 marks)

- Microcytic picture
- due to low MCH and hypochromia
- to low MCV
- Some microcytic hypochromic cells
- Black cells seen (erythroblasts)
- Normocytic erythrocytes
- Hypochromic erythrocytes
- Platelets 170k
- WBC 10.0k
- RBC 4.5k

Infections are an important cause of abortion related morbidity and mortality

Why are infectious abortions associated with the greatest morbidity? (5 marks)

- Most usually seen in para gynaecology
- Risk of sepsis (chorionitis) fetal
- Delay in seeking health care
- post-abortion measures taken
- Poor maternal & fetal health
- Inadequate antenatal care
- Poor hygiene
- Poor nutrition
- Poor sanitation
- Poor water supply
- Poor housing
- Poor education
- Poor awareness
- Poor access to health care
- Poor adherence to treatment
- Poor compliance with advice
- Poor understanding of illness
- Poor knowledge of danger signs
- Poor decision making
- Poor risk taking
- Poor coping mechanisms
- Poor social support
- Poor financial resources
- Poor access to transport
- Poor access to information
- Poor access to services
- Poor access to medicines
- Poor access to skilled personnel
- Poor access to laboratory services
- Poor access to diagnostic services
- Poor access to referral services
- Poor access to emergency services
- Poor access to postnatal care
- Poor access to long term care
- Poor access to rehabilitation services
- Poor access to mental health services
- Poor access to social services
- Poor access to legal services
- Poor access to financial services
- Poor access to educational services
- Poor access to employment services
- Poor access to housing services
- Poor access to water & electricity services
- Poor access to sanitation services
- Poor access to food & nutrition services
- Poor access to clothing services
- Poor access to footwear services
- Poor access to personal care services
- Poor access to household services
- Poor access to community services
- Poor access to national services
- Poor access to international services

What clinical signs suggest presence of post abortion sepsis - oophoritis and pelvic peritonitis (5 marks)

- Fever
- Tachycardia
- Tachypnoea
- Abdominal pain
- Vaginal discharge
- Offensive PV discharge
- Tachypnoea
- Dysuria
- Endometrial shock

List five (5) investigations you would order if endotoxic shock sets in. (10 marks)

- FBC
- CRP
- U/E/C
- Blood Culture
- LFTs
- ABG
- Prothrombin Time
- D-dimer
- Urine Culture
- Urine ECG
- Urine Protein
- Urine Hemoglobin
- Urine Myoglobin
- Urine Creatinine
- Urine Glucose
- Urine Ketones
- Urine Bilirubin
- Urine Urobilinogen
- Urine Nitrites
- Urine Leukocytes
- Urine Epithelial Cells
- Urine Squamous Cells
- Urine Yeast
- Urine Trichomonads
- Urine Gardnerella
- Urine Bacteria
- Urine Fungi
- Urine Parasites
- Urine Helminths
- Urine Protozoa
- Urine Coccidia
- Urine Sporozoa
- Urine Metazoa
- Urine Eukarya
- Urine Prokaryota
- Urine Archaea
- Urine Bacteria
- Urine Fungi
- Urine Parasites
- Urine Helminths
- Urine Protozoa
- Urine Metazoa
- Urine Eukarya
- Urine Prokaryota
- Urine Archaea

For each of the patient state what you would expect to see in the examination, and give the reason. (6)

State the expected features of a peripheral blood film of this patient (4 marks)

State the expected features of a peripheral blood film of this patient (4 marks)

State the expected features of a peripheral blood film of this patient (4 marks)